WE CLAIM:

1. A method of predicting sudden cardiac death comprising:

determining intra-cardiac impedance;

deriving a physiologic cardiac parameter from the determined impedance;

trending the derived physiologic cardiac parameters over spaced time intervals; and

predicting the onset of a sudden cardiac death episode.

2. The method of claim 1 wherein the trending step generates trended data and the predicting step is based on the trended data.

3. The method of claim 1 wherein the predicting step comprises the steps of:

comparing trends of the physiologic cardiac parameters; and

detecting differences between the trends.

4. The method of claim 1 wherein the physiologic cardiac parameter is selected from a group comprising stroke volume, ejection fraction and pre-ejection period.

5. The method of claim 1 wherein the deriving step comprises the steps of:

deriving a parameter when patient is at rest; and

deriving a parameter when patient is not at rest.

6. The method of claim 5 wherein the trending step comprises the step of detecting a difference between the parameters obtained at rest and the parameters obtained when the patient is not at rest.

7. The method of claim 7 wherein the step of determining intra-cardiac impedance comprises measuring intra-cardiac impedance with an implanted device by applying a current between two electrodes of the device and measuring a resulting voltage that is used to calculate the intra-cardiac impedance.

8. A system for predicting sudden cardiac death episode, comprising:

a measuring device that measures intra-cardiac impedance;

a derivation module that derives a physiologic cardiac parameter from the measured impedance; and

a trending module that trends the derived parameter over spaced time intervals to created trend data.

9. The system of claim 8 further comprising an analyzing module that analyzes the trend data to predict the onset of a sudden cardiac death episode.

10. The system of claim 9 wherein analysis of the trends comprises comparing the trends and detecting a difference between the trends.

11. The system of claim 8 further comprising a reporting module that reports the trends to an outside source.

12. The system of claim 11 wherein the reporting module reports trends that predict the onset of a sudden cardiac death episode.

13. The system of claim 8 wherein the derivation module and the trending device are packaged with the implanted measuring device.

14. The system of claim 13 wherein the package is capable of being implanted in a human body.

15. The system of claim 8 further comprising a device for storing the trend data.

16. The system of claim 8 wherein the physiologic cardiac parameter is selected from a group consisting of stroke volume, ejection fraction and pre-ejection period.

17. The system of claim 8 wherein the physiologic cardiac parameter correlates to sympathetic and parasympathetic activity.

18. The system of claim 8 wherein the system downloads the trend data to a separate storage device.

19. The system of claim 8 wherein the implanted device measures intra-cardiac impedance by applying a current between two electrodes and measuring a resulting voltage that is used to calculate the cardiac impedance.

20. The system of claim 19 wherein the electrodes are part of at least one unipolar lead and a remote device.

21. The system of claim 19 wherein the electrodes are part of at least one bipolar lead.

22. The system of claim 19 wherein the electrodes are part of at least one unipolar lead and a bipolar lead.

23. The system of claim 19 wherein the electrodes are part of at least one bipolar lead and a remote device.

24. A method of trending a cardiac parameter, comprising:
measuring an intra-cardiac impedance;

deriving a physiologic cardiac parameter using the measured impedance; and trending the derived parameter over time.

25. The method of claim 24 wherein the measuring step comprises applying a current to a lead positioned within the heart, determining a voltage as a result of the applied current, and calculating an impedance based on the voltage.

26. The method of claim 24 wherein the impedance is measured at spaced time intervals.

27. The method of claim 24 wherein the physiologic cardiac parameter represents sympathetic nervous activity.

28. The method of claim 24 wherein the trending step generates trend data, the method further comprising the step of analyzing the trend data to track predetermined physiological indicators.

29. The method of claim 28 wherein tracking predetermined physiological indicators comprises predicting a sudden cardiac death episode.

30. The method of claim 28 wherein tracking predetermined physiological indicators comprises monitoring a drug regimen.

31. The method of claim 28 wherein tracking predetermined physiological indicators comprises detecting the occurrence of a myocardial infarction.

32. The method of claim 28 wherein tracking predetermined physiological indicators comprises monitoring progress of congestive heart failure.

33. The method of claim 24 wherein the deriving step comprises calculating the parameter using the measured impendence and storing the calculated impedance values into an array.

34. The method of claim 33 wherein the trending step comprises comparing parameter values stored in the array.

35. The method of claim 28 further comprising the step of generating a signal when the trending data indicates that a threshold value for the predetermined physiological indicator has be met.

36. The method of claim 28 further comprising the step of transmitting the trend data using a communications system.

37. The method of claim 28 further comprising the step of transmitting the trend data to a patient management system.

38. The method of claim 24 wherein the measuring, deriving, and trending steps are completed by a unitary implanted device.

39. A computer-readable medium having computer-executable instructions for the method recited in claim 24.

40. A computer data signal embodied in a carrier wave readable by a computing system and encoding a computer program of instructions for executing a computer program of instructions for executing a computer program performing the method recited in claim 24.

41. A device for trending a physiological cardiac parameter, comprising:

an impedance module that measures an intra-cardiac impedance at spaced time intervals;

a parameter module that calculates cardiac parameter values using the measured impedance;

a trending module that generates trend data using the calculated parameter values.

42. The device of claim 41 wherein the parameter values represent a parameter selected from a group consisting of stroke volume, ejection fraction and pre-ejection period.

43. The device of claim 41 wherein the trending data is used to predict a sudden cardiac death episode.

44. The device of claim 41 further comprising an analyzing module that analyzes trend data to track predetermined physiological indicators.

45. The device of claim 44 wherein the predetermined physiological indicators comprise predicting a sudden cardiac death episode.

46. The device of claim 44 wherein the predetermined physiological indicators comprise monitoring progress of congestive heart failure.

47. The device of claim 44 wherein the predetermined physiological indicators comprise determining if a myocardial infarction has occurred.

48. The device of claim 44 wherein the predetermined physiological indicators comprise monitoring effects of a drug regimen on the patient.

49. The device of claim 44 wherein the predetermined physiological indicators comprising monitoring changes in sympathetic tone.